Medicine and the Media

Campaign against AIDS in Switzerland: evaluation of a nationwide educational programme

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Abstract

The campaign against the spread of the acquired immune deficiency syndrome (AIDS) in Switzerland includes a nationwide educational programme. A booklet about AIDS was mailed to every Swiss household in March 1986, and in 1987 there has been a mass media campaign promoting the use of condoms. We evaluated the results of the first phase—the distribution of the booklet—using a separate sample pretest and post-test design. The pretest was carried out 15 days before the booklet was mailed (sample n=1056) and the post-test two months after the booklet was mailed (n=1278). Of the population aged 20-69, to whom the book was sent, 56% read the booklet. For those who read the booklet compared with those who did not the results showed an improvement in knowledge and a better understanding of the risks of specific behaviours and of exposed groups and thus less fear of becoming infected through daily activities. The mean indices of knowledge and beliefs were significantly different when tested by the Kruskal-Wallis method.

Having better information does not imply that people will change their behaviour, but both the high reading rate and the increase in knowledge suggest that the Swiss educational programme reached its objectives. Moreover, the success of this campaign helps to support other campaigns that are being developed to promote the use of condoms.

Introduction

The spread of the acquired immune deficiency syndrome (AIDS) has been greater in Switzerland than in other European countries, putting Switzerland second only to the United States in the proportion of AIDS cases (2·6 per 100 000 inhabitants in December 1986). This high rate may reflect several factors that are peculiar to the Swiss: better official reporting of AIDS; frequent international travel, especially among the more exposed groups of the Swiss population; and the greater promiscuity of intravenous drug users.

Eighteen people had contracted AIDS by the end of 1983, 40 by December 1984, and a total of 100 a year later. The number of cases is still doubling yearly, and 227 cases were reported at the end of March 1987.[1] It is estimated that about 20 000 people are already seropositive, which means that at least 3500 of them will come down with AIDS by 1991.

Until now nearly all the people with AIDS belonged to the high risk groups: 65% were homosexual or bisexual men (excluding intravenous drug users), 10% were intravenous drug users (heterosexuals), 4% were both, 6% were sex partners or children of people with AIDS or of exposed people, 7% were overseas nationals, and 1% were haemophiliacs.[1] There has been only one case due to multiple blood transfusions, and since November 1985 blood products have been systematically controlled. It is likely that more people who do not belong to the high risk groups will become infected owing to the frequent changes of sex partners among teenagers and adults under 40.[2]

The campaign against the spread of AIDS in Switzerland is directed by the Federal Office of Public Health. The first strategy is AIDS surveillance. The second strategy aims at the education and social support of members of the high risk groups whether they are healthy, seropositive, or ill. The third strategy is to inform and educate the entire population. These educational programmes have been organised in cooperation with the independent Swiss AIDS Foundation, which has created a company to market condoms, especially to homosexuals.

The aims of the programme to educate the entire population are (*i*) to encourage adopting safe behaviour; (*ii*) to avoid fear and panic based on unfounded beliefs; (*iii*) to minimise social stigmatisation of high risk groups and of people who are ill; and (*iv*) to provide specific information programmes for groups at risk.

Firstly, a 16 page educational booklet was mailed to the entire Swiss population in March 1986.[3] It clearly set out the main biological and epidemiological facts about AIDS, the sources of infection, and the means of protecting oneself—such as exercising care in the choice of sexual partners, using condoms, and avoiding syringe or needle exchange. The booklet was published in the four national languages and translations were made into Spanish, English, Serbocroat, and Turkish for foreign residents.

This was the first such nationwide information programme carried out.[4] It was repeated by the British government, whose leaflet *AIDS—Don't Die of Ignorance*[5] covers the same topics in fewer words and was also mentioned in the press and in advertisements. Other countries, such as France and West Germany, limited their campaigns to advertisements in newspapers and on radio and television and the United States to local initiatives, the emphasis being on educating the entire population over educating high risk groups.[4,6] The Swiss federal government began the second part of the programme in February 1987 by widely advertising condom use under the slogan "Stop AIDS" and also campaigning in the mass media.

Because of the innovative character of the booklet in public health, the financial investment made, and the interest in the

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effectiveness of health education campaigns the Federal Office of Public Health requested a scientific evaluation of the results of the distribution of the booklet.[7]

Methods

In the evaluation a quasiexperimental "separate sample pretest and post-test" design was used.[8] Because the booklet was being distributed nationwide during the period of the evaluation a control group was not feasible. Two telephone surveys were carried out, one carried out 15 days before the booklet was distributed and the other two months after. A representative sample of the population aged 20-69 years was interviewed (pretest n=1056, post-test n=1278) using the same questionnaire. Eighteen questions were asked to determine knowledge, beliefs about the risk of AIDS, and the degree of individual and collective fear. The theoretical framework assumes that knowledge, beliefs, and attitudes concerning AIDS are produced simultaneously by mass communication about the disease and also by general cultural beliefs (independent of AIDS) about illness and death, sex and freedom, social conformity and deviance, health and youth, social progress, and plagues.[9]

For the campaign to be effective the booklet had to be read by the population. Reading was thus the independent variable against which differences in knowledge, beliefs, and attitudes (as dependent variables) were to be measured.

The validity of the assessment may be assumed for the following reasons. (*a*) Identical random sampling procedures for independent samples before and after were used; the acceptance rate by the eligible population sample (according to the sociodemographic quotas: sex, age, household size, urbanisation, language areas) was 69% and 75% and may be considered satisfactory. With this sample size the confidence intervals are ±3% (when p=q=0·5). Under these conditions the results may be considered representative of the population aged 20-69 in Switzerland. (*b*) Special attention was paid to the problems of telephone interviewing. In Switzerland 91% of households are registered in telephone directories. This does not exclude reaching people who, for example, live with their parents or share flats or unmarried couples.[10] The range of questions and their wording for the telephone interview were assembled to minimise the subjects' emotional reaction to sensitive issues. Thus knowledge questions predominated, with coded keyword answers. These questions dealt with sources of infection by the human immunodeficiency virus (HIV) and methods of protection. A pilot study of face to face and telephone interviews using the questionnaire showed no differences regarding the attitudes of those interviewed. Interviewers were well trained professionals who worked in a controlled telephone laboratory. Indices of knowledge and beliefs were developed in such a way as to lessen the effect of education or of articulate responses on index values. This was later controlled by statistical analysis.

The statistical significance of differences of mean indices was tested according to the Kruskal-Wallis one way analysis of variance test.

No important new information on AIDS was released to the public between the two studies (no historical bias).

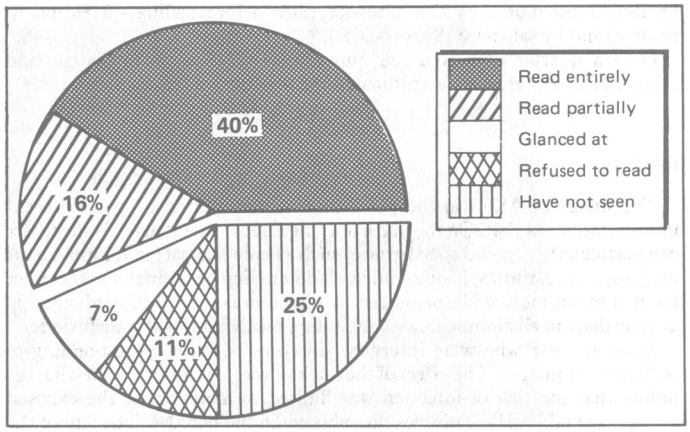
Results

READING RATE

Although the booklet was sent to every household, 18% of those interviewed claimed not to have seen it, and 6% had no recollection of it two months later. The booklet reached at least three quarters of households. The figure shows that 56% of the adult population aged 20-69 read the booklet. This may be considered high, but further analysis of knowledge (see below) shows that those who said that they read the booklet had done so. Undoubtedly, few examples of such a high reading rate exist for this type of document. For instance, similar booklets are published by the Swiss authorities on ballot proposals and mailed to every citizen one month before the vote. Polls that were conducted after ballots in 1978, 1981, and 1982 showed that 35% to 54% of the eligible voters read these booklets.[11]

The reading rate for the AIDS booklet was within the confidence interval when controlled for sex, age, and urbanisation. The results are constant between the three main household types (single, married couples, and families with children—89% of the sample). The level of education did not play a part for those who had completed worker or employee apprenticeships (reading rate 60%). Only the 17% who had the lowest level of education (primary school and no professional training) had a lower reading rate (39%).

Non-readers—those who did not read the booklet—mentioned newspapers, television, radio, and other sources of information about AIDS more often than readers did. Each cited a mean of 1·9 sources, whereas readers cited a mean of 1·7 (apart from the booklet). Seventy three per cent of the parents with children over age 12 gave their children the AIDS booklet to read. The nationwide AIDS educational programme was considered useful by 91% of those who saw (but perhaps did not read) the booklet, against only 2% who judged the programme as useless or even harmful.



Reading rate of the population of Switzerland for the information booklet on AIDS that was distributed in March 1986.

The impact of the information contained in the booklet was evaluated through changes in knowledge, beliefs, and attitudes before and after mailing the booklet for readers and for non-readers.

KNOWLEDGE

The beliefs about ways of contracting AIDS and ways of protecting oneself were both correct and incorrect. These are taken into account (separately or together) to form the three indices of knowledge. Table I shows that there is a trend for readers to have better information *v* non-readers and *v* the pretest. Though those with a higher educational level had greater and more precise knowledge about AIDS, the additional information gained from reading the booklet reduces that difference (table II). The greatest gain was shown by those with apprentice level education.

TABLE I—*Indices of knowledge (averages)*

	Two weeks before the campaign on AIDS (n=986)	Two months after distribution of booklet on AIDS		Kruskal-Wallis one way analysis of variance
		Non-readers (n=508)	Readers (n=688)	
Correct items (a)	3·12	3·13	4·19	p=0·000
Incorrect items (b)	1·75	1·73	1·36	p=0·000
Knowledge index (a−b)	1·37	1·40	2·82	p=0·000

TABLE II—*Knowledge index by educational level (averages)*

	Education			
	Primary (n=390)	Apprenticeship (n=1338)	Technical college (n=292)	University (n=151)
Before campaign	0·80	1·38	1·65	2·04
After campaign:				
Non-readers	0·63	1·68	1·38	2·27
Readers	1·69	3·07	2·76	2·70
Reading rate (%)	39	60	63	62

There was an increase in knowledge concerning the relation between infection with AIDS and intravenous drug use, care in the choice of sex partners, and the use of condoms for protection against AIDS. Some inaccurate beliefs have not yet been modified, however, despite the booklet. One is the risk of becoming infected now in Switzerland through blood transfusions, even though controls are systematically carried out: 43% of readers were convinced of such a risk compared with 52% of non-readers and with 54% of the whole population before reading the booklet. The possibility of becoming infected through casual contact (in a bus, at school, by shaking

hands) was mentioned by 22% of readers (30% before mailing—32% of non-readers) and by saliva by 18% (17-26%).

Only a quarter estimated the number of AIDS cases in Switzerland correctly; a sixth greatly overestimated the number (more than 1000 cases).

BELIEFS

The image of AIDS in the population is determined by two different interpretations of risk. On the one hand, the disease threatens only members of a particularly exposed social group, such as homosexual men, intravenous drug users, prostitutes, haemophiliacs, and nursing personnel. On the other hand, a much more widespread risk of infection is perceived, endangering anyone daily in all circumstances (including receiving blood transfusions).

Most of those who were interviewed expressed ideas corresponding to both of these images. The effect of the booklet was to reinforce somewhat the notion that the risk of infection was limited to members of the exposed groups (see table III). This was the message in the booklet. The aim of the authors was to prevent panic among the population while saying that HIV is not contagious except under specific circumstances (sexual intercourse with unknown partners, exchanging needles). At the moment the infection is mainly confined to relatively small groups of people, but the virus is spreading (as noted on the British posters).

Because the number of people outside the high risk groups who are seropositive is growing, and there is a better understanding of the risks and ways of becoming infected health officials in Europe are broadening the target risk population and recently adopted the term "risky behaviour" instead of "social groups at risk."[12] Thus the newest campaign initiated by the Swiss authorities, "Stop AIDS," promotes the use of condoms without mentioning exposed social groups.

TABLE III—*Indices of beliefs about the risk of AIDS (averages)*

	Two weeks before the campaign on AIDS (n=986)	Two months after distribution of booklet on AIDS		Kruskal-Wallis one way analysis of variance
		Non-readers (n=508)	Readers (n=688)	
Image of diffuse risk (c)	2·47	2·51	2·35	p=0·207
Image of risk limited to exposed groups (d)	0·96	1·06	1·44	p=0·000
Index of representation (c−d)	1·51	1·45	0·91	p=0·000

ATTITUDES

Various indices show that AIDS does not cause panic in the Swiss people. Only 9% expressed a fear of becoming infected by HIV (individual vulnerability). Having read the booklet or not did not change that proportion. Men and women aged 20 to 50, single or married, urban or rural, regardless of education share the same degree of fear. Only for upper class professionals is the rate higher (14%).

On the community level (community vulnerability) AIDS is tenth among the main health problems cited by the Swiss. Risks linked with environmental pollution (including the effects of nuclear energy), cancer and cardiovascular diseases, inappropriate and unbalanced diets, and stress and damaging behaviour (tobacco, alcohol, and illicit drug use) are all mentioned more often than AIDS. The distribution of the booklet on AIDS did not change this rating of perceived health problems.

Only 5% of the population favoured compulsory regulations or measures of repression, or both, against high risk groups to protect the community against the AIDS epidemic. This might be considered an effect of the non-stigmatising tone of the campaign.

Discussion

The AIDS information and education campaign for the population of Switzerland in 1986 was the first of its kind. Swiss health authorities chose a specific medium of communication—a booklet—which was different from methods chosen by West Germany, France, the UK (until later), and the USA. The diversity of languages and numbers of Swiss newspapers would have made an advertisement campaign very complicated. The limited impact of newspaper advertisements in providing useful new information about AIDS is mentioned by Mills *et al* in an evaluation of a publicity campaign launched in March and April 1986 by the Department of Health and Social Security in the UK.[13]

The booklet was also chosen to give full and precise information, as opposed to spectacular news items and rumours, though this medium hinders the comparison of the Swiss programme with other campaigns against AIDS in other countries. Moreover, the many aspects of AIDS (the newness of the disease, sexual taboos, and lack of treatment and vaccine, etc) make it difficult to compare health education about AIDS with that for other diseases.

Some models used in health education, however, may be helpful in understanding the part played by objective information and knowledge, representations of risk, and feelings of vulnerability (health belief model).[14] Such models suggest ways of altering behaviour patterns, but do not imply that they will be adopted. Campaigns with an emotional component might have a complementary effect. Values concerning love, sexuality, risky behaviour, and defence of individual freedom also help to maintain or change behaviour.

Educational campaigns concerning AIDS must reach the entire population with the message that everyone may be at risk. The results of the first study carried out by Hastings *et al* on the leaflet produced by the Scottish Health Education Group shows that it is difficult to get the wording of any mass media publicity on this subject right.[15] People still do not think that the message is intended for them.

Thus it may be presumed that the Swiss booklet met a more receptive audience because the Swiss are accustomed to receiving official information in this form, and addressed to them personally, on various subjects—for example, ballot proposals and information concerning changes of the family code. Moreover, at the beginning of 1986 people had a tendency to overestimate the danger of becoming infected by AIDS and thus felt personally concerned about the disease.

The Swiss educational programme in 1986 should be considered a success as it has both increased knowledge and diminished anxiety in all social groups. Despite the other media influences in the same period the consistency of the increase in knowledge among readers of the booklet across sociodemographic groups shows that an educational booklet can contribute to a better understanding of AIDS. Another important effect was the unanimous approval of the comprehensive campaign initiated by the Federal Office of Public Health. This will help other campaigns, notably the current one on condom use, to reach their objectives.

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